

CLAIMS

What is claimed is:

1. (Canceled) ~~A method of suppressing fires in a space comprising the steps of:
—— (a) generating a first fire suppressing gas mixture from at least one non-azide solid propellant chemical, the first fire suppressing gas mixture comprising at least a first gas, said first gas comprising nitrogen; and
—— (b) delivering at least said first gas into the space.~~
2. (Currently Amended) A method of suppressing fires in a space comprising the steps of:
(a) generating a first fire suppressing gas mixture from at least one non-azide solid propellant chemical, the first fire suppressing gas mixture comprising at least a first gas, said first gas comprising nitrogen; and
(b) delivering at least said first gas into the space
~~The method as claimed in claim 1 further comprising the step of~~
(c) filtering at least a percentage of a second gas from the first fire suppressing gas mixture prior to delivery into the space.
3. (Original) The method as claimed in claim 2 wherein the second gas comprises water vapor.
4. (Previously Presented) The method as claimed in claim 3 wherein the second gas comprises CO₂.

5. (Original) The method as claimed in claim 2 wherein substantially all of the second gas is filtered from the first fire suppressing gas mixture.

6. (Canceled) ~~The method as claimed in claim 6 wherein the predetermined time ranges from about one to five minutes.~~

7. (Currently Amended) A method of suppressing fires in a space comprising the steps of:

(a) generating a first fire suppressing gas mixture from at least one non-azide solid propellant chemical, the first fire suppressing gas mixture comprising at least a first gas, said first gas comprising nitrogen;

(b) delivering at least said first gas into the space; and

~~The method as claimed in claim 1 further comprising the step of~~

(c) reducing the temperature of the first fire suppressing gas mixture prior to delivering into the space.

8. (Canceled) ~~The method as claimed in claim 1 wherein the solid propellant chemical is azide free.~~

9. (Canceled) ~~An apparatus for suppressing fires in a normally occupied enclosed space comprising:~~

~~— (a) a sensor for detecting a fire;~~

~~— (b) at least one solid inert gas generator that, in response to receiving a signal from the sensor, ignites to~~

~~generate only a fire suppressing gas mixture for delivery into the enclosed space; and~~

~~— (c) an inert gas discharge diffuser to direct the fire suppressing gas mixture into said enclosed space.~~

10. (Canceled) ~~The apparatus as claimed in claim 9 wherein the fire suppressing gas mixture includes nitrogen.~~

11. (Currently Amended) (Currently Amended) An apparatus for suppressing fires in a normally occupied enclosed space comprising:

(a) a sensor for detecting a fire;

(b) at least one solid inert gas generator that, in response to receiving a signal from the sensor, ignites to generate only a fire suppressing gas mixture for delivery into the enclosed space; and

(c) an inert gas discharge diffuser to direct the fire suppressing gas mixture into said enclosed space

wherein the fire suppressing gas mixture includes nitrogen and; The apparatus as claimed in claim 10

wherein the fire suppressing gas mixture includes at least one of water vapor and carbon dioxide.

12. (Currently Amended) An apparatus for suppressing fires in a normally occupied enclosed space comprising:

(a) a sensor for detecting a fire;

(b) at least one solid inert gas generator that, in response to receiving a signal from the sensor, ignites to generate only a fire suppressing gas mixture for delivery into the enclosed space; and

(c) an inert gas discharge diffuser to direct the fire suppressing gas mixture into said enclosed space ~~The apparatus as claimed in claim 9~~

wherein the fire suppressing gas mixture comprises at least two gases and the apparatus further comprises at least one filter for filtering at least a portion of at least one of the gases from the fire suppression gas mixture, prior to the delivery thereof to the enclosed space.

13. (Original) The apparatus as claimed in claim 12 wherein the filter is adapted to filter substantially all of the at least one of the gases from the first suppressing gas mixture.

14. (Canceled) ~~A gas generator for generating and delivering a fire suppressing gas mixture to an enclosed space, comprising:~~

~~a housing;~~

~~at least one pre packed solid propellant disposed within said housing;~~

~~a pyrotechnic device for initiating ignition of said solid propellant to thereby generate only said fire suppressing gas mixture; and~~

~~— a discharge diffuser for directing the fire suppressing gas mixture within said enclosed space.~~

15. (Currently Amended) A gas generator for generating and delivering a fire suppressing gas mixture to an enclosed space, comprising:

a housing;

at least one pre-packed solid propellant disposed within said housing;

a pyrotechnic device for initiating ignition of said solid propellant to thereby generate only said fire suppressing gas mixture; and

a discharge diffuser for directing the fire suppressing gas mixture within said enclosed space ~~The gas generator as claimed in claim 14 further comprising~~

at least one filter for filtering at least a portion of one gas from said fire suppressing gas mixture.

16. (Currently Amended) A gas generator for generating and delivering a fire suppressing gas mixture to an enclosed space, comprising:

a housing;

at least one pre-packed solid propellant disposed within said housing;

a pyrotechnic device for initiating ignition of said solid propellant to thereby generate only said fire suppressing gas mixture; and

a discharge diffuser for directing the fire suppressing gas mixture within said enclosed space ~~The gas generator as claimed in claim 14 further comprising~~

at least one screen for reducing the temperature of said fire suppressing gas mixture.

17. (Currently Amended) A gas generator for generating and delivering a fire suppressing gas mixture to an enclosed space, comprising:

a housing;

at least one pre-packed solid propellant disposed within said housing;

a pyrotechnic device for initiating ignition of said solid propellant to thereby generate only said fire suppressing gas mixture; and

a discharge diffuser for directing the fire suppressing gas mixture within said enclosed space ~~The gas generator as claimed in claim 14,~~

wherein said discharge diffuser includes a 180° directional cap.

18. (Currently Amended) A gas generator for generating and delivering a fire suppressing gas mixture to an enclosed space, comprising:

a housing;

at least one pre-packed solid propellant disposed within said housing;

a pyrotechnic device for initiating ignition of said solid propellant to thereby generate only said fire suppressing gas mixture; and

a discharge diffuser for directing the fire suppressing gas mixture within said enclosed space ~~The gas generator as claimed in claim 14,~~

wherein said discharge diffuser includes a 360° directional cap.

19. (Currently Amended) A gas generator for generating and delivering a fire suppressing gas mixture to an enclosed space, comprising:

a housing;

at least one pre-packed solid propellant disposed within said housing;

a pyrotechnic device for initiating ignition of said solid propellant to thereby generate only said fire suppressing gas mixture; and

a discharge diffuser for directing the fire suppressing gas mixture within said enclosed space ~~The gas generator as claimed in claim 14,~~

wherein said discharge diffuser includes a perforated cap.

20. (Currently Amended) A gas generator for generating and delivering a fire suppressing gas mixture to an enclosed space, comprising:

a housing;

at least one pre-packed solid propellant disposed within said housing;

a pyrotechnic device for initiating ignition of said solid propellant to thereby generate only said fire suppressing gas mixture; and

a discharge diffuser for directing the fire suppressing gas mixture within said enclosed space ~~The gas generator as claimed in claim 14,~~

wherein said discharge diffuser includes a 90° directional cap.